

vessel to be in the most adverse loading conditions described by Sections 3/2.1 and 3/4.1 of the Rules.

(3) The calculations on column-buckling required by Section 3/4.3 of the Rules, must employ an effective-length factor, "K", of not less than 2.0.

(4) The calculations on single-rack jacking systems required by Sections 3/2.1 and 3/4.1 of the Rules must include an extra bending moment caused by the most adverse eccentric loading of the legs.

(b) The standard of any classification society, or other established standard acceptable to the Commandant (G-MSE), may be used.

(c) Upon submittal of the plans required by §§127.110 and 133.130 of this subchapter, the standard used in the design must be specified.

(d) If no established standard is used in the design, detailed design calculations must be submitted with the plans required by §§127.110 and 133.130 of this subchapter.

[CGD 82-004, CGD 86-074, 60 FR 57670, Nov. 16, 1995, as amended by CGD 96-041, 61 FR 50731, Sept. 27, 1996]

**§ 134.150 Liftboat-jacking systems.**

(a) For this subchapter, liftboat jacking systems are vital systems and must comply with Sections 4/1.13.1 through 4/1.13.3 of the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units" as well as meet the applicable requirements of Part 128 of this subchapter.

(b) Each control system for a liftboat jacking system must be designed so that loss of power, loss of pressure in the hydraulic system, or low hydraulic-fluid level will activate a visible and audible alarm at the operating station and will not result in the liftboat's uncontrolled descent.

**§ 134.160 Freeboard markings.**

Freeboard markings required by §174.260 of this subchapter must be both permanently scribed or embossed and painted white or yellow on a dark background.

**§ 134.170 Operating manual.**

(a) Each liftboat must have aboard an operating manual approved by the

Coast Guard as complying with this section.

(b) The operating manual must be available to, and written so as to be easily understood by, the crew members of the liftboat and must include:

(1) A table of contents and general index.

(2) A general description of the vessel, including—

(i) Major dimensions;

(ii) Tonnages; and

(iii) Load capacities for—

(A) Various cargoes;

(B) Crane hook; and

(C) Helicopter landing deck.

(3) Designed limits for each mode of operation, including—

(i) Draft;

(ii) Air gap;

(iii) Wave height;

(iv) Wave period;

(v) Wind;

(vi) Current;

(vii) Temperatures; and

(viii) Other environmental factors.

(4) The heaviest loads allowable on deck.

(5) Information on the use of any special cross-flooding fittings and on the location of valves that may require closure to prevent progressive flooding.

(6) Guidance on preparing the unit for heavy weather and on what to do when heavy weather is forecast, including when critical decisions or acts—such as leaving the area and heading for a harbor of safe refuge, or evacuating the vessel—should be accomplished.

(7) Guidance on operating the vessel while changing mode and while preparing the vessel to make a move, and information on how to avoid structural damage from shifting loads during heavy weather.

(8) Information on inherent operational limitations for each mode and on changing modes, including preloading instructions.

(9) Guidance on the proper procedures for discovering the flooding of a normally buoyant leg or leg pad, precautionary information concerning the effects on stability of flooded legs, and what to do upon discovering the flooding of a normally buoyant leg or leg pad.